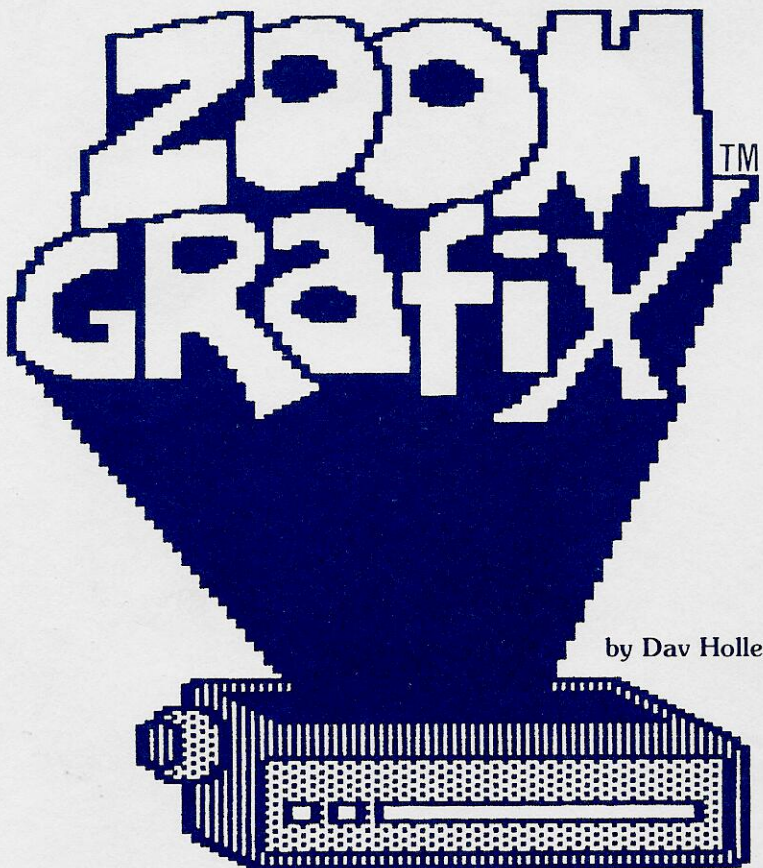# Phoenix Software Presents

ZOOM GRAFIX ™

by Dav Holle

Second Edition

High-resolution graphics screen printing package with support for a wide range of printers

- Works with over 400 combinations of printers and interface cards
- Print positive/negative, upright/rotated, either hi-res screen
- You control size and proportions (over 65,000 combinations)
- Zoom in to any area — select what part to print
- Automatic centering or selectable margins
- Keyboard forms control
- Looks ahead to skip quickly past extra white space
- Prints charts, graphs, or pictures
- Menu driven...extremely easy to use

Requires 48k Apple II or II+ and Applesoft in ROM
or Apple /// in Apple II mode

SETTING UP THE PRINTER

Consult your printer manual to see if your printer has switches to turn on its graphics options, and set them to allow graphics.

If this is the first time you've used your printer, or if you've recently re-installed it or changed its switches, be sure to test it by printing some text from the computer. If you can print text, then everything is probably hooked up right.

TAKE CARE OF YOUR PRINTER

You should be aware that graphics puts a greater strain on the printer than printing out text — the print head must place more ink on the paper during a shorter period of time. Depending on the printer and the graphic being printed, the print head can overheat. Your particular printer may contain safety features to prevent damage from overheating, **BUT SOME PRINTERS HAVE NO PROTECTION AT ALL!**

We have provided as a part of Zoom Grafix the ability to insert a user-definable delay after each line is printed, to give your print head the time it may need to keep from overheating. It's important to you to use this delay wisely — it's **YOUR RESPONSIBILITY** to your printer. Your printer dealer or manufacturer can help you determine what amount of cool-off delay you need to use. The Zoom Grafix default is 20 quarter second intervals (5 seconds), which we believe to be adequate for many printers. If necessary, however, you can set the program to delay more than one minute after each line.

We stress that you should contact the manufacturer or the seller of your printer to determine the appropriate length of the delay.

One final word. The printing of graphics will almost always place more wear on the printer than the printing of text, even if the appropriate line delay is inserted, because more print head impressions are made. Dav Holle and Phoenix Software, Inc. will not be responsible for wear on the printer or any of its parts. Use good judgment. It's your printer — take care of it and it will serve you well.

MAKING FRIENDS WITH ZOOM GRAFIX

Boot the Zoom Grafix disk in the normal manner. If you're unfamiliar with this, please refer to the disk drive manual.

Zoom Grafix is designed to be user-friendly. Special keys are used the same way throughout the package. So, once you acquaint yourself with the general operation of the program, you may never need to refer back to this booklet.

[ESC] is used to ESCAPE from where you are back to the beginning. You may use it to stop the printing, or just to get back to the Picture Menu. More about that later.

[◄———] is used to BACKSPACE. Use it to change something that you've already typed. In most of Zoom Grafix, you can back up past the current line all the way to a previous selection. This can be handy in the tricky parts, like when you're setting the Zoom Window.

[———►] is the opposite of the [◄———] key. It's used to move ahead, and it does something else: it accepts each character on the screen that it moves over, just like you had typed each one yourself. This comes in handy when you've used the [◄———] key to change what you've entered and now you would like to go back to where you left off.

[RETURN] is the key that tells Zoom Grafix that you're done entering. Use it at the end of numbers or names. You can use it all by itself whenever you want to use the default answer.

[Y] or [N] are used to answer Yes or No to many questions. When you use these to answer a Y/N question, you don't have to press the [RETURN] key.

[SPACEBAR] is used while printing to make Zoom Grafix stop sending data to the printer. If your printer has a memory in it, it might take a little while to print what's in its memory before it stops.

DEFAULTS

Defaults are the standard answers that Zoom Grafix has to many of its own questions. Zoom Grafix shows them to you right at the cursor (the flashing blank that shows where you're typing). If you want to accept the default, just press [RETURN] by itself.
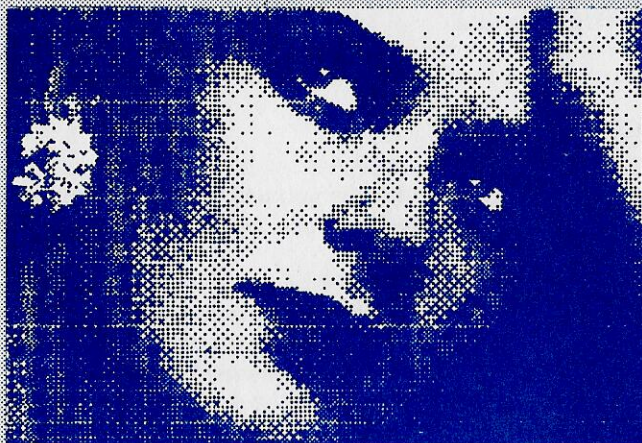
THE SET-UP

The first time you use Zoom Grafix, you will be asked for printer information. This set-up may be changed if you are using a different printer later on.

Using the wrong set-up can't hurt either the printer or the computer, but the program probably won't print out a picture, either. If you type in a wrong answer to one of the set-up questions, you can back up with the backspace key. Using the [ESC] key will take you back to the beginning of the set-up routine.

The set-up program asks a series of questions about the printer and interface you are using. After answering these questions, you will be asked if you want to save this set-up to disk. If this is your proper set-up, you may want to save it to the disk. The next time you use Zoom Grafix you will not have to go through this set-up again. You may wish to write-protect the disk to prevent accidentally damaging it by writing to it. Once it is permanently saved you may still return to this set-up section by hitting the [ESC] key during the boot. The Zoom Grafix disk cannot be copied or written to as a normal disk might be.

After hitting return, if Zoom Grafix waits for the printer for more than a few seconds, then the printer isn't ready or the card may be in a slot other than the one specified. Check that there is paper in the printer and that the switches are in the proper position. If not, correct it. Reset the printer by turning the printer power switch off and then on.

PRESS: F TO FLIP, S TO SWAP, L TO LOAD,
ESC TO QUIT OR RETURN TO GO ON

```
                    ZOOM GRAFIX
  1) WHITE DOTS      : BLACK ON THE PRINTOUT
  2) PRINTOUT IS     : UPRIGHT
  3) SIZE            : 1 X 1
  4) ZOOM WINDOW     : T=0 B=191 L=0 R=279
  5) LEFT MARGIN     : 28 SPACES, CENTERED
  6) PRINT WIDTH     : 8 INCHES
  7) DELAY           : 5 SECONDS
  8) PRINTER         : IDS 460G
     SLOT 1          : APPLE PARALLEL CARD
  9) LINEFEED OR FORMFEED THE PRINTER
  RETURN TO PRINT, 1-9 OR ESC: ■
```

THE PICTURE MENU

The Picture Menu lets you see the current graphics screen while letting you change the picture by flipping it, exchanging screens, or loading a new one from a disk.

If the graphics area looks like garbage, don't be alarmed; it only means you don't have a picture loaded into the screen yet. If you're trying to print graphics from another program that you were running before you ran Zoom Grafix, you might need to swap screens to see the picture you want. Press [S] to swap screens.

If you wish to load a picture (from either the Zoom Grafix disk or from another DOS 3.3 disk) press [L] and enter the name of the picture file. If the file name ends with .PIX or .PIC, or starts with PIC., you can leave that part off when typing in the name.

The flip command [F] will turn the picture upside down. This is useful in printing graphs or charts rotated in the direction of your choice.

THE MAIN MENU

The main menu lets you vary the printing of the picture in many ways. You can change any option shown on the menu by selecting its number. The current values are shown on the right on the menu, and you can decide to go ahead and print it that way — all you have to do is press [**RETURN**].
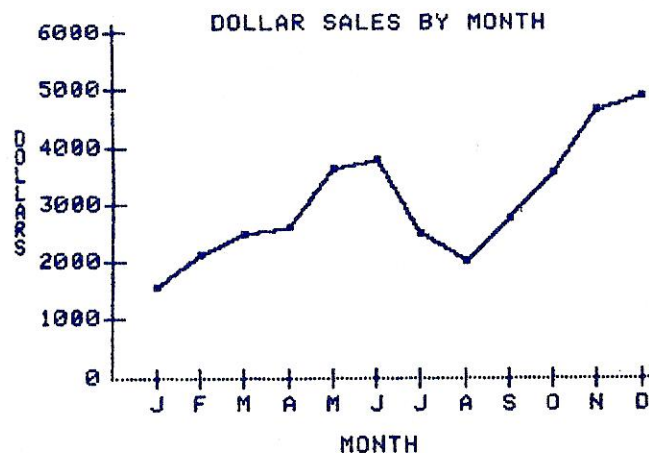
1) WHITE DOTS:

Depending on the graphic you are printing, you may want to reverse the colors of the dots on the printout. Most plots and graphics look best with the white dots printed black — but digitized pictures, like PIC.LADY on the Zoom Grafix disk, look better with WHITE DOTS: WHITE ON THE PRINTOUT so that the shading looks the same as it looks on the screen.

WHITE DOTS: WHITE ON THE PRINTOUT look best for pictures

WHITE DOTS: BLACK ON THE PRINTOUT look best for most graphs and plots

2) PRINTOUT IS:

This may be either UPRIGHT or ROTATED. When Zoom Grafix prints ROTATED, the printout is always turned 90 degrees clockwise. Note, however, that no change to the screen is made — it will still appear the same to you whether UPRIGHT or ROTATED.
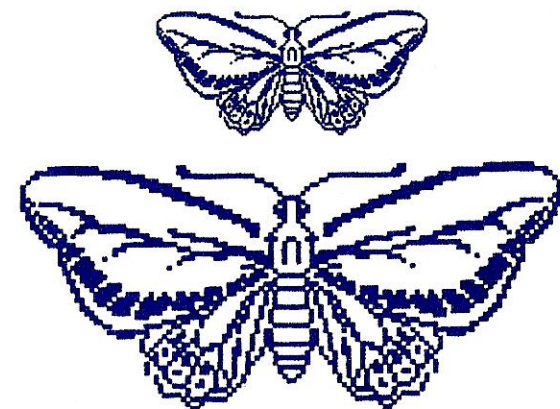
If you desire the picture to face the other way you can do this by using the FLIP command in the Picture Menu. When you use the flip command you will actually see the picture turn upside down.

With some printers, rotating the printout is the only way to make a full double-size printout fit on the paper. With printers that stretch the image a little, a rotated printout would be stretched in a different direction — perhaps with a more pleasing effect. Experiment with your printer to find out what suits you best.

3) SIZE:

The SIZE setting controls how many dots the printer prints for each dot on the screen. The smallest picture is printed 1 x 1, with each point on the screen printed as a single point on the printout.

When you use larger settings, the printout gets bigger. For example, 2 dots high by 2 dots wide gives you a printout that's twice the size in each direction, with each point on the screen represented as four dots on the printout. You can even stretch the printout by using different values for the vertical and horizontal sizes.

1 X 1 AND 2 X 2 BUTTERFLY

Please note that dots high and dots wide are in respect to the way the screen looks when viewed not when printed. In other words if you print a picture of a person (that appears upright on the screen) 5 dots high by 1 dot wide the printout will make him taller even if printed rotated.

If the picture won't fit on the paper at the size you've given, Zoom Grafix will clip the area of the screen so that it fits. You'll be able to see what area will be printed by watching the flashing box that is displayed as you make your settings.

If you're printing UPRIGHT, any clipping is done on the right side of the screen. If the printout is to be ROTATED, the clipping is taken off the bottom of the screen if it needs to.

★★ It's a good idea to make the PRINT WIDTH: and PRINTOUT IS: settings BEFORE you set the size. That way, the clipping will be correct for your final printout.

4) ZOOM WINDOW:

This is the zoom part of Zoom Grafix, and it lets you zoom in, selecting what part of the screen is to be printed.

The four numbers are the values of the Top, Bottom, Left, and Right edges of the current zoom window, which is shown on the picture with a flashing box. With the Apple II high-resolution screen, there are 192 dots from top to bottom of the screen, numbered starting with 0 at the top, down to 191 at the bottom. Horizontally, there are 280 dots, numbered starting with 0 at the left to 279 at the far right.

When the current zoom window is less than the whole screen, you'll be given a chance to easily set it back to the full screen. Of course, if the full screen won't fit on the paper width, it will be automatically clipped again. The resulting new window will show the maximum size that will fit. This can be a help while you're experimenting with different sizes.

As you set the values for each edge of the zoom window, the flashing box will show the effect of each change you make. (Remember, the exact zoom window includes the box itself as well as the area inside it.) If the new box isn't exactly what you want, it's not too late! Use the left-arrow key to back up, then change it again.

5) LEFT MARGIN:

Normally, Zoom Grafix automatically centers the printout within the current print width, but you can easily override it. When Zoom Grafix is in automatic-centering mode, the word CENTERED is shown on the main menu next to the margin setting. If you want centered printouts, Zoom Grafix will set the margin for you.

When manually setting the margin, three values are shown. They are the suggested margin settings that Zoom Grafix has computed for positioning the picture on the left, center or right of the paper. The combination of the print width, window, size, and orientation of the printout determines how much room is left for margins, so if you're going to set the margin manually, set it after you've set everything else.

6) PRINT WIDTH:

Zoom Grafix needs to know what width of paper you're using, in order to know how much will fit on it. This value is preset for the printer you are set up for, but you should change this if you're using wider or narrower paper.

This is not the width of the paper itself, but is the width of the widest line that Zoom Grafix should be allowed to print out. Zoom Grafix will not permit print width settings that are too large for the printer in use.

7) DELAY:

This option will allow you to change the length of the delay value defaulted from the original set-up. This is **ESPECIALLY IMPORTANT** when printing murals or areas of dark graphics!

Printers with buffers will need a longer delay to get the same amount of cooling time, because the delay must be long enough for the buffer to empty out, in addition to the time needed for the print head to cool.

During the printout, you can get an additional delay by pressing the spacebar; Zoom Grafix will stop sending data to the printer and the printer will stop as soon as it runs out of the data in its buffer, if it has one. Pressing the spacebar again will resume printing.

8) PRINTER:

The current printer/interface set-up can be changed by choosing this setting. This calls in the set-up program. Any main-menu settings you have changed will be lost, but the pictures in memory will remain intact.

9) LINEFEED OR FORMFEED THE PRINTER:

Select this to send linefeed or formfeed characters to your printer to position the paper for your next printout. Some printers lose track of the top of form when printing graphics so sending a formfeed may not advance the paper to the top of the next sheet.

10) INTENSITY:

This setting is only available when using the Apple Silentype printer, and is used to set the darkness of the printout. The higher the number, the darker the intensity.

[RETURN]

Pressing the [RETURN] key alone will take you directly to the print routine. You'll be given one last chance to view the current settings, and if you approve, the printing begins.

During printing, the area to yet be printed is displayed in inverse. As Zoom Grafix prints, the parts that are completed are changed back to normal.

When done, Zoom Grafix lets you send linefeeds or formfeeds to the printer to position it for whatever you want to do next.

[ESC]

Pressing the [ESC] key from the main menu will take you back to the Picture Menu, after first asking if you wish to quit. If you press it while printing a picture, Zoom Grafix stops printing and changes the picture back to normal, then moves to the end-of- printout routine.

IF YOU HAVE TROUBLE

1. Be sure your printer has paper in it.
2. Test your printer to see if it will print text.
3. Be sure any printer switches are set to graphics mode.
4. Check to be sure the Zoom Grafix set-up is correct.
5. If extra white space is being printed between lines you should specify NO to linefeeds during set-up.
6. If over printing occurs or if the picture appears to be printing backwards then answer YES to linefeeds.
7. Read text carefully during set-up; notes concerning some printer/card set-ups have been included to help you.

HOW TO FIND HIGH RESOLUTION PICTURES

The Zoom Grafix disk comes with some sample pictures, for your amusement and experimentation. You may load these or picture files from other disks. For Zoom Grafix to load it, a file must be a DOS 3.3 binary file, either 33 or 34 sectors long. Zoom Grafix can also print the high resolution pictures that are a part of many programs, including graphics from Pascal. When the picture is shown on the screen, boot Zoom Grafix. As long as you haven't done anything to clear the graphic memory, like turning off the computer, the picture should still be in one of the two screens (use the Swap Screens command to see them both).

Phoenix Software, Inc. wishes to thank Apple Computer, Inc. for their permission to include pictures from the Apple Slide Show.

SAVING YOUR OWN PICTURE FILES

Pictures can be saved on disk using DOS's BSAVE command, like this:

BSAVE HIRES-SCREEN-ONE,A8192,L8184
or
BSAVE HIRES-SCREEN-TWO,A16384,L8184

Be aware that booting a system master diskette will change some of the screen-one memory. To avoid this, boot using a slave DOS created with the INIT command.

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MEDIA WARRANTY

Phoenix Software warrants the diskette on which Zoom Grafix is recorded to be free from defects in material or workmanship under normal use for a period of 90 days after the date of original purchase. If, during this 90 day period, a defect in the diskette should occur, the diskette (along with a copy of your receipt) may be returned to Phoenix Software, and it will be replaced without charge. Following the 90 day period, defective diskette returned to Phoenix Software will be replaced for a $5 fee.

BACKUP DISKETTES

An optional backup program diskette may be purchased directly from Phoenix Software for $10. This backup diskette will be sold only to registered original purchasers, with a limit of one backup per Zoom Grafix package. The same media warranty applies to the backup as applies to the original diskette.

SOFTWARE WARRANTY

Zoom Grafix is warranted to print high-resolution graphics when used properly with the proper equipment. Zoom Grafix requires an Apple II or Apple II Plus computer with 48k, one Apple Disk II drive and 16-sector controller, and Applesoft in ROM or on a language card, or an Apple /// in Apple II Applesoft emulation mode, and a printer and interface which are compatible with Zoom Grafix.

Phoenix Software, Inc., and its suppliers, distributors and dealers make no warranty that Zoom Grafix will perform properly on custom or other non-standard equipment, equipment introduced or revised after the publication of this software (April 1, 1982), improperly operated equipment, equipment not compatible with Zoom Grafix, or equipment which is defective or not equipped or configured with the proper options to handle the printing of graphics in the manner required by Zoom Grafix.

If Zoom Grafix does not perform as stated above, within 30 days of original purchase, please contact Phoenix Software at the telephone number listed below. If after Phoenix Software's assistance Zoom Grafix still does not perform as warranted, Phoenix Software will provide authorization to return the complete package, including all diskettes and documentation, to the point of purchase for a refund. Refunds will be limited to the purchase price plus any applicable sales tax; shipping charges and bank charges are specifically excluded.

We reserve the right to modify and improve Zoom Grafix without notice or liability. A fee may be charged for updates when and if they become available.

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A NOTE TO

PLACE
POSTAGE
HERE

Phoenix Software, Inc.
64 Lake Zurich Drive
Lake Zurich, IL 60047

IF YOU NEED TO CONTACT US

We can be reached regarding all matters at this address:

Phoenix Software, Inc.
64 Lake Zurich Drive
Lake Zurich, Illinois 60047
312/438-4850

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Phoenix Software, Inc.

64 Lake Zurich Drive
Lake Zurich, IL 60047

**PRODUCT
REGISTRATION CARD**

**Please complete and mail this card today.
As a registered owner of Zoom Grafix, you may purchase one backup copy by sending in the original sales receipt and $10.00.**

Name _____

Address _____

City, State, Zip _____

Where Purchased _____

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A NOTE TO MANUFACTURERS AND DISTRIBUTORS

We encourage you to contact us about supporting your products.

Zoom Grafix is based on reliable, ongoing support of a wide range of equipment. Since Zoom Grafix was originally introduced, over a dozen new products have been explicitly added to the list of compatible devices, and we're sincere about expanding Zoom Grafix further in future editions.

Zoom Grafix works closely with your products; we would like to work closely with you, too. If your products are currently supported by Zoom Grafix but are being revised, please keep us informed so that we may continue to support your products well.

IF YOU NEED TO CONTACT US

We can be reached regarding all matters at this address:

Phoenix Software, Inc.
64 Lake Zurich Drive
Lake Zurich, Illinois 60047
312/438-4850

ZOOM GRAFIX works with the following
to print High Resolution graphics:

```
Anadex 9000              MPI 88
Anadex 9001              NEC PC-8023
Anadex 9500              Okidata 82A w/Okigraph
Anadex 9501              Okidata 83A w/Okigraph
Datasouth DS-180         Prism 80 (monochrome)
Diablo                   Prism 132(monochrome)
Epson MX-70              Pro-writer (C. Itoh)
Epson MX-80 w/Grtx       Qume
Epson MX-100             Silentype
IDS 225                  Spinwriter
IDS 440G                 Starwriter (C. Itoh)
IDS 445                  Xerox
IDS 460G
IDS 560
```

****

Interfaces with any of these cards:

```
Apple Cent. Par.         I.S. Pkaso
Apple Comm. Card         K-T Parallel
Apple Parallel Card      M.C. CPS Parallel
Apple Serial Card        M.C. CPS Serial
Apple Super Serial       Microbuffer ][
Apple Silentype Card     MPI Auto Plot Card
Apple /// RS232 Port     SSM-AIO Parallel
CCS 7710A Serial         SSM-AIO Serial
CCS Par.(7720/7728)      Tymac Card
Epson APL Card           VERSAcard Parallel
Grappler Card            VERSAcard Serial
```

This package also supports line printer
mode graphics for TEXT-ONLY printers.